

## 101.14 - Cast Steels, White Cast Irons, and Ductile Irons (disk and block form)

These SRMs are intended for analysis of cast steels and cast irons by rapid instrumental methods.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

| Elemental Composition (mass fraction in %) |  |               |                  |                 |              |               |                |                  |                |                |              |                   |
|--|--|---------------|------------------|-----------------|--------------|---------------|----------------|------------------|----------------|----------------|--------------|-------------------|
| SRM  | Description  | Unit of Issue | Aluminum<br>(Al) | Arsenic<br>(As) | Boron<br>(B) | Carbon<br>(C) | Cerium<br>(Ce) | Chromium<br>(Cr) | Cobalt<br>(Co) | Copper<br>(Cu) | Iron<br>(Fe) | Lanthanum<br>(La) |
| C1137a                                     | White Cast Iron                                    | disk          | (0.007)          |                 |              | 2.86          | 0.016          | 0.643            |                | 0.192          |              |                   |
| 1138a                                      | Cast Steel Standard                                | block         | (0.067)          | (<0.005)        |              | 0.118         |                | 0.13             |                | 0.09           | (98.7)       |                   |
| 1139a                                      | Cast Steel Standard                                | block         | (0.13)           | (<0.005)        |              | 0.790         |                | 2.18             |                | 0.47           | (93.0)       |                   |
| C1145a                                     | White Cast Iron                                    | disk          | (0.04)           | (0.02)          |              | 2.92          |                | 0.63             | 0.058          | 0.46           |              |                   |
| 1173                                       | Ni-Cr-Mo-V Steel                                   | disk          |                  |                 |              | 0.423         |                | 2.70             | (0.064)        | 0.204          |              |                   |
| C1173                                      | Cast Steel 3                                       | disk          | (0.005)          | (0.02)          |              | 0.453         |                | 2.63             | (0.064)        | 0.204          |              |                   |
| C1290                                      | High-Alloy White Cast Iron<br>(HC-250+V)           | disk          |                  |                 |              | 3.04          |                | 30.5             |                | 0.065          |              |                   |
| C1291                                      | High-Alloy White Cast Iron<br>(Ni-Hard, Type I)    | disk          |                  |                 |              | 2.67          |                | 2.78             |                | 0.26           |              |                   |
| C1292                                      | High-Alloy White Cast Iron I<br>(Ni-Hard, Type IV) | disk          |                  |                 |              | 3.47          |                | 11.4             |                | 0.36           |              |                   |
| C2424                                      | Ductile Iron C                                     | disk          | (<0.01)          |                 | (0.002)      | 2.68          | 0.0046         | 0.13             | (0.05)         | 0.125          |              | 0.0011            |

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|--|---|---------------|-----------|----------------|----------------|-----------------|-------------|--------------|----------------|--------------|------------|---------------|
| SRM  | Description                                     | Unit of Issue | Lead (Pb) | Magnesium (Mg) | Manganese (Mn) | Molybdenum (Mo) | Nickel (Ni) | Niobium (Nb) | Phosphorus (P) | Silicon (Si) | Sulfur (S) | Titanium (Ti) |
| C1137a                                     | White Cast Iron                                 | disk          |           | 0.032          | 0.52           | 0.86            | 2.17        |              | 0.087          | 1.15         | 0.017      | (0.04)        |
| 1138a                                      | Cast Steel Standard                             | block         |           |                | 0.35           | 0.05            | 0.10        |              | 0.035          | 0.25         | 0.056      | (0.0012)      |
| 1139a                                      | Cast Steel Standard                             | block         |           |                | 0.92           | 0.51            | 0.98        |              | 0.012          | 0.80         | 0.013      | (0.004)       |
| C1145a                                     | White Cast Iron                                 | disk          |           |                | 0.187          | 0.48            | 0.62        |              | 0.215          | 0.271        | 0.191      | 0.012         |
| 1173                                       | Ni-Cr-Mo-V Steel                                | disk          |           |                | 0.19           | 1.50            | 4.06        | (0.045)      | 0.033          | 1.28         | 0.092      | (0.015)       |
| C1173                                      | Cast Steel 3                                    | disk          | (0.0006)  |                | 0.174          | 1.46            | 4.04        |              | 0.031          | 1.38         | 0.092      | 0.037         |
| C1290                                      | High-Alloy White Cast Iron (HC-250+V)           | disk          |           |                | 0.66           | (0.041)         | 0.917       |              | 0.030          | 0.971        | 0.013      |               |
| C1291                                      | High-Alloy White Cast Iron (Ni-Hard, Type I)    | disk          |           |                | 1.14           | 0.32            | 4.34        |              | 0.028          | 1.34         | 0.032      |               |
| C1292                                      | High-Alloy White Cast Iron I (Ni-Hard, Type IV) | disk          |           |                | 0.55           | 0.25            | 5.04        |              | 0.049          | 0.59         | 0.016      |               |
| C2424                                      | Ductile Iron C                                  | disk          |           | 0.006          | 0.268          | 0.019           | 0.061       |              | 0.041          | 3.37         | 0.024      | 0.050         |

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